



Colorado Department
of Public Health
and Environment

COLORADO DISCHARGE PERMIT SYSTEM

RATIONALE FOR CERTIFICATION

BOOTH LAND AND LIVESTOCK - MILLIKEN

CAFO PERMIT NUMBER COA932000

CERTIFICATION NUMBER COA932067

I. TYPE OF PERMIT Colorado Concentrated Animal Feeding Operations General Permit

II. FACILITY INFORMATION

A. Facility Type: Concentrated Animal Feeding Operation - Beef Cattle Operation
Annual Fee: \$750 + (\$0.09 x 6,500 animal units)
Permitted Capacity: 6,500 Animal Units
Total Annual Fee: \$1,335.00

B. Legal Contact: Gary S. Booth
Booth Land and Livestock, LLC
P.O. Box 72
Lucerne, CO 80646
(970) 353-7055
Cell: (970) 539-0319

C. Facility Contact: Steve Booth
Booth Land and Livestock - Milliken
P.O. Box 72
Lucerne, CO 80646
(970) 353-7055
Cell: (970) 396-5133

D. Facility Location: 11359 Weld County Road 52
Milliken, CO 80543
Weld County

III. FACILITY DESCRIPTION

Booth Land and Livestock - Milliken (facility) is a beef cattle feedyard with a confinement capacity of 6,500 head of cattle. The facility includes three single-stage impoundments (West Pond, East Pond and Silage Catch Pond) and one solids separating basins for wastewater treatment and containment. Wastewater runoff from the facility is conveyed primarily via sheet flow across the confinement pens and other portions of the production area to the East and West Ponds. A wastewater diversion exists along the western boundary of the production area to direct runoff to the West Pond. Runoff from the silage storage area flows via sheet flow to the Silage Catch Pond.

Discharge spillways exist on the southwest corner of the Silage Catch Pond and on the south side of the East Pond for directing overflow and are the discharge monitoring points for the facility. During a sufficiently large precipitation event, the East Pond will flow to the West Pond via a culvert until such time the water level inundates the dividing berm and the two impoundments become one level surface of water. A discharge from the East Pond spillway would flow south 1.75 miles to the Big Thompson and then five miles east to the South Platte River. A discharge from the Silage Catch Pond spillway would flow to the Loveland and Greeley Canal and then continue east for seven miles to the Greeley Reservoir and Greeley Lake West Reservoir.

Manure is stored in the cattle confinement pens until land applied. The facility owns or controls eight land application sites and associated corners, totaling 1,074 spreadable acres, for the application of manure and wastewater. Details regarding the location of the land application sites are summarized in Part VI below.

The volume of process wastewater and runoff generated at the facility as a result of the 25-year, 24-hour storm is greater than that from the chronic storm for the West and East Ponds. The chronic storm results in greater runoff for the Silage Pond. The impoundment storage volumes and drainage basin runoff volumes for the applicable storms are shown below:

Impoundment Name	West Pond	East Pond	Silage Catch Pond
Volume at 2 feet of freeboard (acre-feet)	9.0	2.5	0.3
Volume of runoff from drainage basin (acre-feet)	8.6		0.1

IV. CERTIFICATION REQUIREMENTS

- A. The facility is not a “Housed Commercial Swine Feeding Operation” as that term is defined at 25-8-501.1(2)(b), C.R.S., and is not a duck CAFO.
- B. The facility is not a CAFO for which a Total Maximum Daily Load (TMDL) has been established for the facility.
- C. A discharge from the facility would not be to surface water for which there is an applicable control regulation that limits the quantity or concentration of total phosphorus or total nitrogen in discharges.
- D. The facility has not requested alternative CAFO effluent limitations and has not proposed the use of site-specific alternative technologies per section 61.17 (7) of Regulation No. 61.
- E. The facility has submitted a complete Application to Be Certified Under a General Permit for Concentrated Animal Feeding Operations and Nutrient Management Plan (NMP).
- F. The facility’s rain gauge is capable of accurately measuring precipitation to a detection limit of 0.1 inch. An acceptable Standard Operating Procedure for measuring precipitation was provided as part of the permit application.
- G. All impoundments were designed by a professional engineer and have been designed and constructed in accordance with the standards of the Natural Resources Conservation Service, Field Office Technical Guide, Section IV, or equivalent.
- H. All impoundments, except those not required to have spillways, have properly designed and constructed spillways designed to prevent erosion of the structural integrity of the impoundment. A spillway exemption was approved by the Environmental Agriculture Program for the North Pond and Middle Pond.

- I. Depth markers have been installed in all open surface impoundments and terminal tanks, in accordance with Part IV.B.3., of the general permit.
- J. Two feet of freeboard, or other freeboard level approved by the Program, exists in each open surface impoundment and terminal tank, in accordance with 61.17(5)(c)(ix)(E). An alternative freeboard of eight inches was approved by the Environmental Agriculture Program on December 12, 2008.
- K. Clean water is diverted, as appropriate, from production areas, manure stockpiles, and composting areas, in accordance with 61.17(5)(c)(ix)(F).
- L. Structures used to divert process wastewater from the production area are sized, in accordance with 61.17(5)(c)(ix)(G).

V. CONFORMANCE WITH CERTIFICATION REQUIREMENTS

Based on the information presented in Section IV above, the facility meets the requirements for certification under the permit as required in Attachment A of the permit.

VI. NUTRIENT MANAGEMENT PLAN

A Nutrient Management Plan (NMP) that satisfies the requirements of Part III of the permit was submitted with the application for permit coverage. The best management practices and procedures detailed in the NMP, as required to satisfy Part III (A)(1) through (9) of the permit, are incorporated into this certification by reference. The terms of the NMP listed in Part III (B)(1) of the permit are also incorporated into this certification by reference. The terms of the NMP are available through public notice for review and comment. The NMP must be kept on-site as long as the operation is certified under the permit.

A summary of location information related to the land application site(s) is provided in the table below:

<u>Land Application Site Name</u>	<u>Spreadable Acreage</u>	<u>County</u>	<u>GPS Location</u>	
			<u>Latitude</u>	<u>Longitude</u>
Field 1	141	Weld	40.3744	-104.8649
Field 2	103	Weld	40.3672	-104.8643
Field 3	146	Weld	40.3695	-104.8535
Field 4	143	Weld	40.3729	-104.8442
Field 5	146	Weld	40.3722	-104.8415
Field 6	82	Weld	40.3749	-104.8353
Field 7	69	Weld	40.3680	-104.8361
Field 8	130	Weld	40.3812	-104.8373
Corners	114	Weld	Associated with Land Application Sites	

VII. RECORDKEEPING REQUIREMENTS

Recordkeeping requirements are presented in Part V of the permit.

VIII. MONITORING REQUIREMENTS

- A. Monitoring requirements for discharges are presented in Part VI of the permit.
- B. Soil sampling requirements are detailed in the facility's Nutrient Management Plan (NMP) in accordance with Part III (A) 7) and Part III (B) 4)(a) of the permit. As prescribed in the NMP, the facility is responsible for soil sampling at depths outlined in the Colorado State University Cooperative Extension *Best Management Practices for Manure Utilization- Bulletin 568A*. The bulletin identifies the following sampling depths as appropriate:
- 1 foot or less, to evaluate crop phosphorus, potassium, and other nutrient needs;
 - 4 to 6 feet, from the deeper root zone should be collected after crop harvest and/or prior to any manure or effluent application to evaluate soil nitrate (NO₃); and
 - Soil sampling below the active root zone may be needed to document that nutrients are not leaving the root zone, as identified in the Colorado State University Cooperative Extension Best Management Practices for Manure Utilization-Bulletin 568A.

IX. REPORTING REQUIREMENTS

Reporting requirements are presented in Part VII of the permit.

- A. Signatory Requirements: Signatory requirements for reports and submittals are presented in Part VII (B) of the permit.
- B. Annual Reports: The facility must submit an annual report to the Environmental Agriculture Program by March 31st of each year. The annual report must include the information detailed in Part VII (C) of the permit.
- C. Special Notifications: Special notifications are required in the event of a spill, bypass, or other noncompliance. Notification requirements are presented in Part VII (D) of the permit.

X. NMP CHANGES, PERMIT REOPENER, PERMIT RENEWAL, AND FEE INFORMATION

- A. Changes to the NMP: For substantial changes to the terms of the NMP listed in Part III (B)(1) of the permit, the NMP and the facility's certification under the permit will be changed as presented in Part III (C) of the permit.
- B. Reopener: The permit may be modified, suspended, or revoked in whole or in part during its term for any reason outlined in Part VIII (F) of the permit.
- C. Renewal: Requirements for permit renewal are discussed in Part I (H) of the permit.
- D. Fee Information: Permit fee requirements are presented in Part VIII (H) of the permit. An annual fee must be paid to the Colorado Department of Public Health and Environment to maintain coverage under the permit.

XI. REFERENCES

- A. Natural Resources Conservation Service, *Field Office Technical Guide*, Section IV.

- B. *Colorado Water Quality Control Commission, Regulation No. 61, Colorado Discharge Permit System Regulations (5 CCR 1002-61)*. Denver: Colorado Department of Public Health and Environment as amended December 12, 2011 and effective January 30, 2012.
- C. Colorado State University Cooperative Extension *Best Management Practices for Manure Utilization-Bulletin 568A*, September 1999.

Chad DeVolin
Environmental Agriculture Program
Colorado Department of Public Health and Environment
February 8, 2013

XII. PUBLIC NOTICE COMMENTS